

CLAIMS

What is claimed is:

1. A method of separating plasma membranes, comprising the steps of:
isolating plasma membranes with a cationic colloidal silica plasma membrane isolation step;
washing the isolated plasma membranes with sodium carbonate to produce silica coated plasma membrane;
prior to any proteolytic digestion, solubilizing the silica coated plasma membrane in 2% SDS;
separating the plasma membrane proteins on an SDS PAGE gel.
2. The method of claim 1, further comprising excising the proteins;
subjecting the proteins to in gel trypsin digestion; and then
analyzing the proteins with mass spectrometry and bioinformatics database searching.
3. A method of separating plasma membranes, comprising the steps of:
isolating plasma membranes;
washing the isolated plasma membranes;
solubilizing the silica coated plasma membrane;
separating the plasma membrane proteins.

4. The method of claim 3, further comprising excising the proteins; subjecting the proteins to in gel trypsin digestion; and then analyzing the proteins with mass spectrometry and bioinformatics database searching.
5. The method of claim 3 wherein said washing of the isolated plasma membranes is conducted with sodium carbonate.
6. The method of claim 3 wherein the solubilizing of the silica coated plasma membrane is conducted in 2% SDS.
7. The method of claim 3 wherein the plasma membrane proteins are separated with a cationic colloidal silica plasma membrane.
8. The method of claim 3 wherein the solubilizing of the silica coated plasma membrane is conducted prior to any proteolytic digestion.
9. The method of claim 8, further comprising excising the proteins; subjecting the proteins to in gel trypsin digestion; and then analyzing the proteins with mass spectrometry.

10. The method of claim 8 wherein said washing of the isolated plasma membranes is conducted with sodium carbonate.

11. The method of claim 8 wherein the solubilizing of the silica coated plasma membrane is conducted in 2% SDS.

12. The method of claim 3 wherein the solubilizing of the silica coated plasma membrane is conducted prior to any proteolytic digestion.

13. The method of claim 12, further comprising excising the proteins; subjecting the proteins to in gel trypsin digestion; and then analyzing the proteins with mass spectrometry.

14. The method of claim 12 wherein said washing of the isolated plasma membranes is conducted with sodium carbonate.

15. The method of claim 12 wherein the solubilizing of the silica coated plasma membrane is conducted in 2% SDS.